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NOTE: SAS (r) Proprietary Software Release 8.2 (TS2M0)

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NOTE: This session is executing on the WIN_PRO platform.

```

1      options ls=120 ps=79 nodate;
2      ods noproctitle;
3      /*****\
4      Program:      c:\meps\prog\Example_L3.sas
5
6      Description:  This example shows how to:
7                    (1) Aggregate event records to the person level
8                    (2) Make 1 annual variable from 3 round variables
9                    (3) Make a categorical variable from a continuous variable
10                   (4) Use SUDAAN to calculate standard errors
11
12      Input Files:  c:\meps\data\h59g.sas7bdat (2001 Office-Based Visits)
13                   c:\meps\data\h60.sas7bdat (2001 Full-Year File)
14      \*****/
15
16      libname hc 'c:\meps\data';

```

NOTE: Libref HC was successfully assigned as follows:

```

Engine:      V8
Physical Name: c:\meps\data

```

```

17
18      title 'AHRQ MEPS DATA USERS WORKSHOP (LINKING) -- NOV/DEC 2004';
19      title2 'Link 2001 Household File and 2001 Events File';
20
21      proc format;
22          value inscov 1='1 Any Private' 2='2 Public Only' 3='3 Uninsured';
NOTE: Format INSCOV has been output.
23          value insured 1='1 Insured' 2='2 Uninsured';
NOTE: Format INSURED has been output.
24          value agecat
25              1='1. 0-3'
26              2='2. 4-7'
27              3='3. 8-11'
28              4='4. 12-15'
29              5='5. 16-17'
30              6='6. 18+';
NOTE: Format AGECAT has been output.
31          value genckup 1='1 General Checkup' 2='2 No General Checkup';
NOTE: Format GENCKUP has been output.
32      run;

```

```

33
34          /* 2001 Office-based medical provider visits */
35          /* Identify persons with a visit for a general check-up & their expenditures */
36
37      title3 "# Persons with a General Checkup in a Provider's Office";
38      data h59g; set hc.h59g(keep=dupersid vstctgry obxp01x obsf01x); by dupersid;
39          if first.dupersid then do;
40              genckup=.;

```

```
41         ambtotpd=0;
42         ambfampd=0;
43     end;
44     retain genckup ambtotpd ambfampd;
45     if vstctgry = 1 then do;
46         genckup = 1;
47         ambtotpd + obxp01x;
48         ambfampd + obsf01x;
49     end;
50     if last.dupersid;
51     label
52         genckup = 'Had Office-Based General Checkup'
53         ambtotpd='Total Amount Paid'
54         ambfampd='Amount Paid by Family';
55     keep dupersid genckup ambtotpd ambfampd;
56     run;
```

NOTE: There were 147490 observations read from the data set HC.H59G.

NOTE: The data set WORK.H59G has 23286 observations and 4 variables.

```
57     proc freq; tables genckup/missing; run;
```

NOTE: There were 23286 observations read from the data set WORK.H59G.

NOTE: The PROCEDURE FREQ printed page 1.

```
58
59     title3 'Variables from Full-Year File (Persons w/ Positive Weight)';
60     data h60; set hc.h60(keep=dupersid perwt01f varstr01 varpsu01 age31x--age53x inscov01);
61     by dupersid;
62         /* subset to positive weight persons */
63     if perwt01f > 0;
64         /* define AGE as last nonmissing age in 2001 */
65     if age53x ge 0 then age=age53x;
66     else if age42x ge 0 then age=age42x;
67     else if age31x ge 0 then age=age31x;
68         /* make age category variable */
69     agecat = (age ge 0) + (age gt 3) + (age gt 7) + (age gt 11) + (age gt 15) + (age gt 17);
70         /* make insurance status variable */
71     if inscov01>2 then insured=2; else insured=1;
72     label insured='Had Health Insurance in 2001';
73     run;
```

NOTE: There were 33556 observations read from the data set HC.H60.

NOTE: The data set WORK.H60 has 32122 observations and 11 variables.

```
74     proc freq; tables
75         insured*inscov01
76         agecat/list missing;
77         format insured insured. inscov01 inscov. agecat agecat.;
78     run;
```

NOTE: There were 32122 observations read from the data set WORK.H60.

NOTE: The PROCEDURE FREQ printed page 2.

```
79     proc means nmiss min max maxdec=0; class agecat; var age; format agecat agecat.; run;
```

NOTE: There were 32122 observations read from the data set WORK.H60.

NOTE: The PROCEDURE MEANS printed page 3.

```
80
81     title3 'Link Person-Level File from Events File with Full-Year Person File';
82     data pers; merge
83         h59g
84         h60(drop=age31x--age53x inscov01 in=a); by dupersid; if a;
85     if genckup = . then genckup=2;
86     run;
```

NOTE: There were 23286 observations read from the data set WORK.H59G.

NOTE: There were 32122 observations read from the data set WORK.H60.

NOTE: The data set WORK.PERS has 32122 observations and 10 variables.

```
87     proc freq; tables genckup; format genckup genckup.; run;
```

NOTE: There were 32122 observations read from the data set WORK.PERS.

NOTE: The PROCEDURE FREQ printed page 4.

```
88
89           /* sort for SUDAAN */
90           proc sort;  by varstr01 varpsu01;  run;
```

NOTE: There were 32122 observations read from the data set WORK.PERS.

NOTE: The data set WORK.PERS has 32122 observations and 10 variables.

```
91
92           title3 'Persons Age 18+';
93           proc crosstab data=pers filetype=sas design=wr notot norow;
94             subpopn agecat=6;
95             nest varstr01 varpsu01/missunit;
96             weight perwt01f;
97             subgroup genckup insured;
98             levels 2 2;
99             tables genckup genckup*insured;
100            print nsum colper secol / style=box wsumfmt=f15.0 nodate notime;
101            rformat genckup genckup.;
102            rformat insured insured.;
103           run;
```

```
*****  
This copy of SAS-Callable Single-User SUDAAN, serial number A0000039, for Windows is licensed to Social & Scientific  
Systems (The Sudaan Administrator). It expires on November 04, 2004.  
*****
```

WARNING:

Your annual SUDAAN license has expired. SUDAAN will no longer execute after January 31, 2005. Please contact the SUDAAN representative at your site to have your license renewed. You may also call the SUDAAN Product Coordinator at 919-541-6602 or send e-mail to SUDAAN@RTI.ORG for further assistance.

Opened SAS data file PERS for reading.

NOTE: There were 32122 observations read from the data set WORK.PERS.
NOTE: The PROCEDURE CROSSTAB printed pages 5-7.

```
104  
105     title3 'Persons Age 18+ with a General Checkup';  
106     proc means data=pers(where=(agecat=6 & genckup=1)) n mean maxdec=2;  
107         class insured;  
108         format insured insured.;  
109         var ambtotpd ambfampd;  
110         weight perwt01f;  
111     run;
```

NOTE: There were 9369 observations read from the data set WORK.PERS.
WHERE (agecat=6) and (genckup=1);
NOTE: The PROCEDURE MEANS printed page 8.

NOTE: SAS Institute Inc., SAS Campus Drive, Cary, NC USA 27513-2414

AHRQ MEPS DATA USERS WORKSHOP (LINKING) -- NOV/DEC 2004
Link 2001 Household File and 2001 Events File
Persons with a General Checkup in a Provider's Office

1

Had Office-Based General Checkup

genckup	Frequency	Percent	Cumulative Frequency	Cumulative Percent
.	10859	46.63	10859	46.63
1	12427	53.37	23286	100.00

AHRQ MEPS DATA USERS WORKSHOP (LINKING) -- NOV/DEC 2004
 Link 2001 Household File and 2001 Events File
 Variables from Full-Year File (Persons w/ Positive Weight)

2

insured	INSCOV01	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1 Insured	1 Any Private	21127	65.77	21127	65.77
1 Insured	2 Public Only	6410	19.96	27537	85.73
2 Uninsured	3 Uninsured	4585	14.27	32122	100.00

agecat	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1. 0-3	1847	5.75	1847	5.75
2. 4-7	2096	6.53	3943	12.28
3. 8-11	2122	6.61	6065	18.88
4. 12-15	2103	6.55	8168	25.43
5. 16-17	989	3.08	9157	28.51
6. 18+	22965	71.49	32122	100.00

Analysis Variable : age

agecat	N Obs	N Miss	Minimum	Maximum
1. 0-3	1847	0	0	3
2. 4-7	2096	0	4	7
3. 8-11	2122	0	8	11
4. 12-15	2103	0	12	15
5. 16-17	989	0	16	17
6. 18+	22965	0	18	85

AHRQ MEPS DATA USERS WORKSHOP (LINKING) -- NOV/DEC 2004
Link 2001 Household File and 2001 Events File
Link Person-Level File from Events File with Full-Year Person File

4

Had Office-Based General Checkup

genckup	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1 General Checkup	12161	37.86	12161	37.86
2 No General Checkup	19961	62.14	32122	100.00

S U D A A N
Software for the Statistical Analysis of Correlated Data
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Release 8.0.1

Number of observations read : 32122 Weighted count :284247327
Observations in subpopulation : 22965 Weighted count:211917458
Denominator degrees of freedom : 412

Variance Estimation Method: Taylor Series (WR)
For Subpopulation: AGECAT = 6
by: Had Office-Based General Checkup.

		Had Office-Based General Checkup		
		Total	1 General Checkup	2 No General Checkup
Sample Size		22965	9369	13596
Col Percent		100.00	42.53	57.47
SE Col Percent		0.00	0.52	0.52

Variance Estimation Method: Taylor Series (WR)
For Subpopulation: AGECAT = 6
by: Had Office-Based General Checkup, Had Health Insurance in 2001.

Had Office- Based General Checkup		Had Health Insurance in 2001		
		Total	1 Insured	2 Uninsur- ed
Total	Sample Size	22965	19315	3650
	Col Percent	100.00	100.00	100.00
	SE Col Percent	0.00	0.00	0.00
1 General Checkup	Sample Size	9369	8739	630
	Col Percent	42.53	46.12	17.86
	SE Col Percent	0.52	0.54	0.78
2 No General Checkup	Sample Size	13596	10576	3020
	Col Percent	57.47	53.88	82.14
	SE Col Percent	0.52	0.54	0.78

AHRQ MEPS DATA USERS WORKSHOP (LINKING) -- NOV/DEC 2004
 Link 2001 Household File and 2001 Events File
 Persons Age 18+ with a General Checkup

Had Health Insurance in 2001	N Obs	Variable	Label	N	Mean
1 Insured	8739	ambtotpd	Total Amount Paid	8739	271.70
		ambfampd	Amount Paid by Family	8739	38.73
2 Uninsured	630	ambtotpd	Total Amount Paid	630	204.03
		ambfampd	Amount Paid by Family	630	83.54